

IN THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in this application.

1. (Currently Amended) A method of isolating a thiol R'SH from a thiol-containing mixture, the method including the steps of

forming a mixed disulphide R'SSR of the thiol R'SH by reacting the thiol R'SH with a second mixed disulphide R"SSR, in which R is a hydrophobic moiety which is not immobilised on a stationary phase, and R" is selected so that a forward reaction of the R'SH with the second mixed disulphide R"SSR to form R'SSR and R"SH is favoured over a reverse reaction of R"SH with R'SSR back to R"SSR and R'SH;

purifying the mixed disulphide R'SSR by a process selected from selective precipitation and chromatography;

reacting the purified mixed disulphide R'SSR with a reducing agent to produce the thiol-containing mixture of thiols R'SH and RSH; and

separating the mixture of thiols R'SH and RSH to isolate the thiol R'SH,
wherein R'SH is 1-D-myo-inositol-2-deoxy-2-(N-acetyl-L-cysteinyl)amino- α -D-glucopyranoside or mycothiol, the second mixed disulphide R"SSR is 2-thiopyridyl-6-hydroxynaphthylidysulphide, R" is a 2-thiopyridyl group, and R is a substituted or unsubstituted polynuclear aromatic group.

2. (Previously Presented) The method as claimed in Claim 1, wherein purifying the mixed disulphide R'SSR includes exploiting an increased hydrophobicity thereof relative to the thiol R'SH.

3. (Cancelled)

4. (Cancelled)

5. (Previously Presented) The method as claimed in Claim 1, wherein the mixed disulphide is purified by means of reversed phase high performance liquid chromatography (HPLC).

6. (Currently Amended) The method as claimed in Claim 1, wherein forming the mixed disulphide includes reacting the free thiol species R'SH with the mixed disulphide compound R''SSR, in which R'' is a 2-thiopyridyl group.

7. (Previously Presented) The method as claimed in Claim 1, wherein the reducing agent is selected from a group consisting of dithiothreitol and β -mercaptoethanol.

8. (Previously Presented) The method as claimed in Claim 1, comprising separating the mixture of thiols R'SH and RSH by high performance liquid chromatography (HPLC).

9. (Previously Presented) The method as claimed in Claim 8, wherein the high performance liquid chromatography is performed on a C18 reversed phase medium.

10. (Cancelled)

11. (Cancelled)

12. (Currently Amended) The method as claimed in Claim 1 44, wherein the hydrophobic moiety R is a 6-hydroxynaphthyl group.

13. (Cancelled)

14. (Cancelled)

15. (Previously Presented) The method as claimed in claim 1, wherein the mixed disulphide R'SSR is 2-S-(mycothiyl)-6-hydroxynaphthalenedisulphide.

16. (Previously Presented) A disulphide of a formula R'SSR in which R'S is mycothiyl and R is a non-immobilised hydrophobic substituted polynuclear aromatic hydrocarbon moiety.

17. (Previously Presented) The disulphide as claimed in Claim 16, wherein the substituted polynuclear aromatic hydrocarbon moiety is a substituted naphthyl group.

18. (Previously Presented) The disulphide as claimed in Claim 17, wherein the substituted naphthyl group is a 6-hydroxynaphthyl group.